CLAIMS

What is claimed is:

1.   A method implemented within a distributed build system comprising:

transmitting a first source file from a program build file repository to a first node, the first node using the source file to generate a target file identified in the build process;

receiving a request for the first source file from a second node; and

redirecting the second node to retrieve the first source file from the first node rather than from the program build file repository.

2.   The method as in claim 1 further comprising:

updating file location data to indicate that the first source file is stored at the first node and the second node.

3.   The method as in claim 2 further comprising:

receiving a request for the first source file from a third node;

choosing between the first node and the second node based on a node prioritization policy; and

redirecting the third node to either the first node or the second node based on the results of the node prioritization policy.

4.   The method as in claim 3 wherein the node prioritization policy comprises assigning a relatively higher priority to nodes which have requested a source file more recently than other nodes, the method further comprising:

redirecting the third node to retrieve the first source file from the second node.

5.   The method as in claim 3 further comprising:

redirecting the third node to retrieve the first source file from the second node based on the results of the node prioritization policy;

determining that the second node is busy; and

as a result of the determination that the second node is busy, redirecting the third node to retrieve the first source file from the first node.

6.   The method as in claim 5 wherein the second node being busy comprises the second node transferring a second source file to a fourth node.

7.   The method as in claim 3 further comprising:

determining that the first node and/or the second node are busy and/or do not contain a copy of the first source file; and

redirecting the third node to retrieve the first source file from the program build file repository.

8.   The method as in claim 1 further comprising:

transmitting a copy of the first source file from the first node to the second node.

9.   The method as in claim 8 wherein the first node begins to copy the first source file to the second node prior to fully receiving the source file from the program build file repository.

10. A system comprising:

a program build file repository to store source files used during a build process;

a central build module to transmit a first source file from the program build file repository to a first node, the first node using the source file to generate a target file identified in the build process;

a file tracking module to receive a request for the first source file from a second node, and to redirect the second node to retrieve the first source file from the first node rather than from the program build file repository.

11. The system as in claim 10 further comprising:

file location data to indicate that the first source file is stored at the first node and the second node.

12. The system as in claim 10 wherein, responsive to receiving a request for the first source file from a third node, the file tracking module chooses between the first node and the second node based on a node prioritization policy and redirects the third node to either the first node or the second node based on the results of the node prioritization policy.

13. The system as in claim 12 wherein the node prioritization policy comprises assigning a relatively higher priority to nodes which have requested a source file more recently than other nodes, and wherein the file tracking module redirects the third node to retrieve the first source file from the second node.

14. The system as in claim 12 wherein the file tracking module redirects the third node to retrieve the first source file from the second node based on the

results of the node prioritization policy; determines that the second node is busy; and as a result of the determination that the second node is busy, redirects the third node to retrieve the first source file from the first node.

15. The system as in claim 14 wherein the second node being busy comprises the second node transferring a second source file to a fourth node.

16. The system as in claim 12 wherein the file transfer module determines that the first node and/or the second node are busy and/or do not contain a copy of the first source file; and responsively redirects the third node to retrieve the first source file from the program build file repository.

17. The system as in claim 10 wherein the first node begins to copy the first source file to the second node prior to fully receiving the source file from the program build file repository.

18. A system comprising:

program build file storage means to store source files used during a build process;

central build means to transmit a first source file from the program build file repository to a first node, the first node using the source file to generate a target file identified in the build process;

file tracking means to receive a request for the first source file from a second node, and to redirect the second node to retrieve the first source file from the first node rather than from the program build file repository.

19. The system as in claim 18 further comprising:

file location storage means to indicate that the first source file is stored at the first node and the second node.

20. The system as in claim 18 wherein, responsive to receiving a request for the first source file from a third node, the file tracking means chooses between the first node and the second node based on a node prioritization policy and redirects the third node to either the first node or the second node based on the results of the node prioritization policy.

21. The system as in claim 20 wherein the node prioritization policy comprises assigning a relatively higher priority to nodes which have requested a source file more recently than other nodes, and wherein the file tracking means redirects the third node to retrieve the first source file from the second node.

22. The system as in claim 20 wherein the file tracking means redirects the third node to retrieve the first source file from the second node based on the results of the node prioritization policy; determines that the second node is busy; and as a result of the determination that the second node is busy, redirects the third node to retrieve the first source file from the first node.

23. The system as in claim 22 wherein the second node being busy comprises the second node transferring a second source file to a fourth node.

24. The system as in claim 20 wherein the file transfer means determines that the first node and/or the second node are busy and/or do not contain a copy

of the first source file; and responsively redirects the third node to retrieve the first source file from the program build file storage means.

25. The system as in claim 18 wherein the first node begins to copy the first source file to the second node prior to fully receiving the source file from the program build file storage means.